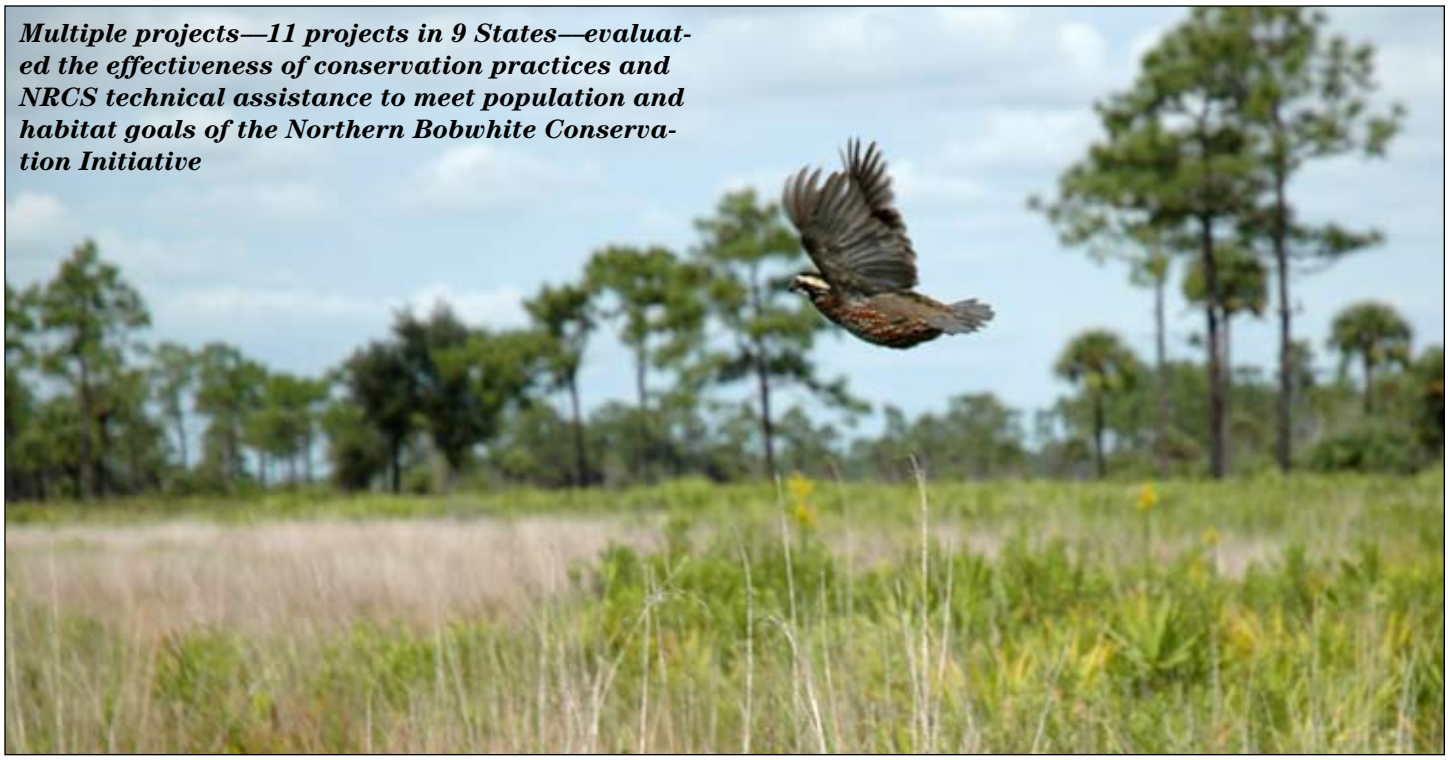
Major Technology Project—Northern Bobwhite Quail Restoration

Northern Bobwhite Quail Research and Demonstration Projects # 68–7482–3–121



Multiple projects—11 projects in 9 States—evaluated the effectiveness of conservation practices and NRCS technical assistance to meet population and habitat goals of the Northern Bobwhite Conservation Initiative

The AWCC led the Bobwhite Restoration Project, a cooperative effort among multiple agencies designed to develop and evaluate the technology needed to establish or manage the habitat needed to restore northern bobwhite quail populations to 1980 levels.

Dr. Wes Burger of MSU is overseeing the studies.

The technology will assist NRCS field staff in future planning by evaluating the efficacy of NRCS conservation practices in restoration of northern bobwhite habitat and populations.

The research and new technology will assist in meeting a goal of the Northern Bobwhite Conservation Initiative that seeks the addition of 2,770,922 coveys to the current population.

Partners include Mississippi State University, Forest and Wildlife Research Center, Department of Wildlife and Fisheries (MSU), Quail Unlimited, Inc. (QU), and the Southeastern Association of Fish and Wildlife Agencies (SEAFWA).

The Department of Wildlife and Fisheries at MSU is the umbrella institution that coordinated 11 research projects among 9 universities. States with research projects include Arkansas, Florida, Illinois, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, and Texas.

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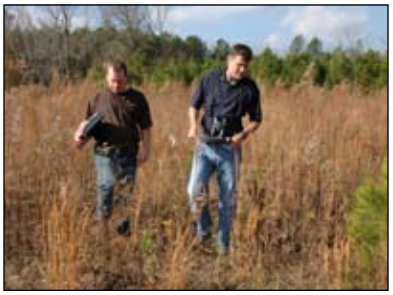
Findings from a sampling of Bobwhite Quail Research Projects

Better quail and grassland songbird habitat with fire and roller chopping

A study of rangelands in south Florida by the Tall Timbers Research Station, University of Georgia, and University of Florida found that quail populations could be doubled in as little as 2 years with improved management. Specifically, it found the use of summer fire rather than winter fire and roller drum chopping in summer offered both improved forage for cattle and improved quail habitat.

Conclusion: Use of summer fire on a 2-year frequency along with roller drum chopping, if needed, increases forage production and quail habitat on Florida rangeland.



Quail numbers double with only 3 percent of the farm in fallow buffers

A North Carolina State University study of linear and block field borders on 24 farms found that quail populations almost doubled on farms where 2 to 3 percent of the cropland edge was allowed to go fallow. It also found that blocks of fallow habitat (1/4 acre to 6 acres in size) produced twice the number of quail as narrow (10-foot) linear field borders.

Conclusion: Quail populations may be increased in agricultural landscapes with relatively little amounts of land dedicated to early successional habitat.

Disk, use fire and herbicides for early successional vegetation

A University of Tennessee study compared the success of numerous treatments in promoting forbs and other early successional habitat within older, rank stands of native warm-season grasses, as well as methods to control tall fescue and woody species. Timing of treatments was critical, as was intensity of disking.

Conclusion: Active management is required to maintain early successional habitat to provide wildlife needs and prevent woody species encroachment. Fire and heavy disking are most successful methods, while mowing is ineffective.

Buffers provide valuable connections to large habitat blocks

Research in Mississippi by Iowa State University shows a cumulative effect from applying buffers that connect larger blocks of grassland habitat. A farm with this combination produced three to four times as many quail as surrounding farms with minimal habitat. Also, buffers with diverse plants attracted twice the diversity of songbirds, and block habitats produced the most songbird diversity and nesting success.

Conclusion: Landscape systems of block habitat with connecting grassland and riparian buffers multiply benefits to grassland birds.

Bobwhite response to EQIP grazing and brush management practices differs in the High Plains and Rolling Plains ecoregions of Texas

Studies by Texas Tech and Texas A&M Universities show quail benefit from some, but not too much, woody cover. In the High Plains, where there was little brush, more quail were found in areas with more woody cover. In heavy mesquite cover in the Rolling Plains, brush management was helpful. Deferred grazing practices were helpful in both areas.

Conclusion: Some woody cover and deferred grazing are helpful to quail.